

WHAT IS CLAIMED IS:

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1. An aqueous ink composition which contains water, a water-soluble solvent, a water-soluble resin and a dye, and additionally a quick-drying property imparting agent, wherein the dye has a solubility in the water lower than a solubility in the water-soluble solvent, solubility in water of the dye is 10 wt% or lower, and the quick-drying property imparting agent has a solubility in the water lower than a solubility in the water-soluble solvent.

2. An aqueous ink composition according to claim 1, wherein content of the water in the ink composition is in the range of 30-95 wt%, ratio of the contents of the water and the water-soluble solvent is in the range of 9:1-3:7, and boiling point of the water-soluble solvent is lower than that of the water or vapor pressure of the water-soluble solvent is higher than that of the water.

3. An aqueous ink composition according to claim 1, wherein solubility of the quick-drying property imparting agent in water is in the range of 0.1-60 wt%, and solubility of the quick-drying property imparting agent in the water-soluble solvent is in the range of 0.5-80 wt%.

4. An aqueous ink composition according to claim 1, wherein melting point of the quick-drying property imparting agent is in the range of 20-250°C, solubility in water of the quick-drying property imparting agent

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is 10 wt% or lower, and content of the quick-drying property imparting agent in the ink composition is in the range of 0.5-10 wt%.

5. An aqueous ink composition according to claim 1, wherein the quick-drying property imparting agent is at least one compound selected from the group consisting of oxazole compounds and triazole compounds.

6. An aqueous ink composition according to claim 5, wherein the quick-drying property imparting agent is at least one compound selected from the group consisting of 1,2,3-benzotriazole, benzotriazole-5-carboxylic acid, 1H-benzotriazole-1-methanol, N-(1H-benzotriazol-1-ylmethyl)formamide, benzoxazole, 2-mercaptobenzoxazole, 4-benzylamino-7-nitro-2,1,3-benzoxadiazole, and 2-benzoxazolinone.

7. An aqueous ink composition according to claim 1 or 2, wherein the water-soluble solvent is at least one solvent selected from the group consisting of alcohol, ketone and ether solvents.

8. An aqueous ink composition according to claim 7, wherein the water-soluble solvent is at least one solvent selected from the group consisting of alcohols of not more than 3 carbon atoms.

9. An aqueous ink composition according to claim 8, wherein the water-soluble solvent is ethanol or propanol.

10. An aqueous ink composition according to claim 1, wherein the water-soluble resin is at least one

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resin selected from the group consisting of polyvinylpyrrolidone, polyvinyl alcohol, polyurethane, polyacrylic acid, polyether and copolymers thereof.

11. An aqueous ink composition according to claim 1, wherein content of the water-soluble resin in the ink composition is in the range of 0.1-8 wt%.

12. An aqueous ink composition according to claim 1, wherein the dye is at least one dye selected from the group consisting of fluorescent dyes, inorganic dyes, organic dyes and solvent-insoluble dyes, and solubility of the dye in water at 25°C is not higher than 10 wt%.

13. An aqueous ink composition according to claim 12, wherein the dye is a fluorescent dye containing a rare earth element and a ligand.

14. An aqueous ink composition according to claim 13, wherein the rare earth element in the fluorescent dye is europium and the ligand is thenoyltrifluoroacetone or naphthoyltrifluoroacetone.

15. An aqueous ink composition according to claim 1, wherein content of the fluorescent dye in the ink composition is in the range of 0.1-5 wt%.

16. An aqueous ink composition according to claim 1, wherein the total content of the components of the ink composition other than the water and the water-soluble solvent is in the range of 5-10 wt%.

17. An aqueous ink composition according to claim 1 which additionally contains at least one surface

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treating agent selected from the group consisting of silicone-based surface treating agents and fluorine-based surface treating agents.

18. An aqueous ink composition according to claim 17, wherein content of the surface treating agent in the ink composition is in the range of 0.01-2 wt%.

19. An aqueous ink composition according to claim 1 which additionally contains at least one additive selected from the group consisting of binders, charge donating agents, pH adjusters, fluorescent sensitizers, surface treating agents, surface active agents, leveling agents, anti-foaming agents, germicides, and antioxidants.

20. An aqueous ink composition according to claim 1 which has a viscosity in the range of 1-8 cP and a flash point of not lower than 20°C.

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